Appln. No.   :   10/715,516

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants   :   Bruce H. HANSON et al.   Group Art Unit: 3651

Appln. No.   :   10/715,516   Examiner: Khoi H. TRAN

Filed   :   November 19, 2003

For   :   **SYSTEM AND METHOD OF FILLING CONTAINERS**

REQUEST FOR PRE-APPEAL BRIEF REVIEW

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Window, Mail Stop <u>AF</u>
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

        This request is being filed concurrently with a Notice of Appeal and is responsive to the Final Official Action of March 15, 2007. Reconsideration and withdrawal of the 35 U.S.C. §102(b) rejection of claims 6, 13 and 19 is respectfully requested in view of the arguments presented in the Rule 1.111 Response and the following remarks.

> **A prima facie case of anticipation has not been set forth and the Rejection Under 35 U.S.C. § 102(b) is improper**

<u>Examiner's Assertion</u>

        In rejecting claims 6, 13 and 19 as anticipated by U. S. Patent No. 6,283,304 to Gottlieb et al., the Examiner argued that Gottlieb shows a method comprising assigning filling variables with at least one container and a number of drop points. The Examiner is of the further opinion that the method comprises determining at least the total thickness of all mail pieces or thickness of each mail piece and an order of drop. According to the Examiner, Gottlieb determines that if the level of estimated drop mail pieces is within the minimum and maximum container level, only one container is determined or estimated to be needed. If the number of mail pieces varies and the maximum container level is estimated to be excessive for a particular drop pint, Gottlieb determines if an additional container is required.

Applicant's Response

Applicant submits that Gottlieb does not make any estimations. For example, Gottlieb does not estimate the number of containers required based on a if the number of product varies between a maximum or minimum or for the drop point. At best, Gottlieb discloses:

- measuring the mail pieces in a bin to determine the fill capacity of the bin; and
- if the bin is at its fill capacity, the system will (i) alert the operator to empty the bin and (ii) redirect the mail pieces to another bin;

In addition, Gottlieb discloses:

- measuring the thickness of mail pieces coming to a particular bin; and
- if the bin is near its fill capacity, the system will (i) calculate the additional thickness of incoming mail pieces to the bin and (ii) if the additional mail pieces would fill the bin, determine if an alternate bin is available for the mail pieces. If an alternate bin is not available, the system will shut down.

In either situation, as discussed in more detail below, Gottlieb merely (i) alerts the operator of a fill capacity in order to empty the bin, (ii) redirects the mail pieces to another bin, if possible, or (iii) shuts the system down so that the operator can empty the bin. However, Gottlieb does not teach determining a best estimate of a number of containers needed if a level of fill varies between a maximum and minimum fill value of the at least one container, nor does Gottlieb teach determining a best estimate of a number of containers needed if the number of product varies for the drop point.

Claims 6 and 13

In more particularity, the system and method of the present invention ensures that the containers are uniformly filled and that all containers used in the system are utilized to their maximum capacity. The invention may be used to reduce the total number of containers required in the system by, for illustration, averaging the product throughout all of the containers or forcing additional product into a previous container or containers. If the system and method determines that the threshold has been exceeded, the product can be substantially evenly distributed for all of the containers within a particular drop point by averaging the product over the entire drop point for the container fill. If the system and method determines that the threshold is not exceeded, then the system and method may "force" the additional product into a previous container in order to reduce the number of containers needed for the particular drop point.

More specifically, claim 6 recites, in pertinent part,

.... determining a <u>best estimate</u> of a number of containers
needed if a level of fill varies between a maximum and minimum fill
value of the at least one container; and
determining a <u>best estimate</u> of a number of containers needed
if the number of product varies for the drop point.

These features are not taught by Gottlieb.

<u>Referring to the flow of FIG. 2 in Gottlieb, the fill amount of the containers is determined</u> <u>solely for the purpose of providing an indication to empty the bin (when it is deemed full), or to</u> <u>divert the product to another bin</u>. There is no disclosure, whatsoever, that the Gottlieb method determines any estimate of the number of bins needed if a fill level varies (i) between a maximum and minimum fill value of the bin or (ii) for a particular drop point. In fact, Gottlieb does not even contemplate whether a fill of product will vary between a maximum and minimum fill value for particular bin. Gottlieb merely makes a determination of fill capacity to allow the operator to empty the bin or divert mail to another bin, if possible. Gottlieb also makes no mention of making estimates if the product varies for a drop point.

More specifically, in Gottlieb, a mail piece is fed into the sorting apparatus and measured by thickness sensors and fed to a particular bin. The measurement is saved in a queue or stack memory device. A query is made as to whether the bin in which the mail piece was delivered is almost full. If the bin is almost full, a sensor indicates to the operator that the bin should be emptied. If the bin is not emptied, the thicknesses of all of the mail pieces which are to be delivered to a particular bin, but not delivered, are added to the bin almost full value to obtain a calculated thickness. Next, a query is made as to whether the calculated thickness equals a bin-full thickness to determine if the bin is full. If the bin is not full, then feeding and measuring, storing thickness and calculating bin-full thicknesses continue. If the bin is full, a <u>query is made as to whether alternate bins are available</u> for use in conjunction with the mail delivery designation of the full bin. If alternate bins are available, the mail piece(s) for the full bin is routed and delivered to the alternate bin.

However, there is no disclosure, whatsoever, that Gottlieb makes any estimates as to the number of bins (containers) required based on fill variables or drop points. Accordingly, Applicant submits that the above calculations and/or processes do not determine a number of bins needed with the system, much less an estimate of the bins required. Gottlieb simply <u>does not</u> determine a best estimate of number of bins needed, much less, based on if a level of fill varies between a maximum and minimum value. Additionally, Gottlieb <u>does not teach determining a best estimate</u> of a number

of bins needed if the number of product varies for the drop point. In fact, there is absolutely no disclosure in Gottlieb of making any estimate of the number of bins needed during a particular sorting run. Instead, Gottlieb is concerned with a fill level of a particular bin, and if the bin is full, emptying the bin or directing the mail to an alternate bin. This certainly is not the same as making estimates, based on some variables, as to how many bins may be needed.

Claim 13 is dependent on claim 6 and, as such, includes all of the features of claim 6. For this reason, claim 13 also contains allowable subject matter.

Claim 19

Claim 19 depends from claim 14. Claim 14 contains allowable subject matter and, as such, claim 19 also contains allowable subject matter. For example, claim 14 recites, in part

> ... calculating a best estimate of containers needed if a level of fill varies between a maximum fill value and a minimum fill value and a number of product varies;
> calculating an expected number of the containers needed for a drop point based on the calculated best estimate;
> determining a number of product required per container for the drop point based on the number of product and the expected number of containers for the drop point ....

As discussed above, Gottlieb does not disclose calculating a best estimate of bins needed if the level of fill varies between a maximum and minimum fill value and the number of product varies. Instead, in Gottlieb, the fill amount of the bins is determined solely for the purpose of providing an indication to empty a bin, or to divert the product to another bin if available. There is no disclosure, whatsoever, that the Gottlieb method determines any estimate of the number of bins needed, for whatever purpose. Also, as discussed above, Gottlieb does not even contemplate whether product will vary between a maximum and minimum fill value for particular bin. Instead, Gottlieb appears to only be concerned with determining a maximum fill value so that the bin can be emptied by an operator or the product can be diverted to another bin.

Accordingly, Applicants respectfully request that the rejection over claims 6, 13 and 19 be withdrawn.

Other Matters

Applicant submits that the features of claim 1 are distinguishable over the Gottlieb reference and, as such, claim 1 and its dependent claims (which were withdrawn) should be rejoined. Also, as

noted above, independent claim 14 contains allowable subject matter and all of its dependencies should be rejoined. Applicants submit that claim 1 recites, in part,

> assigning variables associated with at least one container and a number of drop points;
> determining at least one threshold value based on the variables; and
> distributing the product to the at least one container for each drop point based on the determined at least one threshold value.

However, Gottlieb does not show assigning variables associated with at least <u>one container and a number of drop points</u>. If there is to be any interpretation, Gottlieb, shows variables associated with the mail pieces, itself, i.e., thickness measurements of the mail pieces. Also, these thickness measurements are used to determine the fill capacity of the bins. Thus, although the size of the bin should be known, this does teach that the Gottlieb method assigns any variables to the bin. Also, Gottlieb does not teach assigning a variable to a drop point. In Gottlieb, the mail pieces are assigned to a drop point such that they can be diverted to such drop point. This is not, however, suggestive, of assigning a variable to the drop point.

CONCLUSION

Reconsideration of the Final Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
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